

In the Claims

1. (currently amended) A method for extracting speech recognition features from a speech signal coded as a bitstream, comprising:

decoding the bitstream to recover linear predictive coding filter parameters;
decoding the bitstream to recover a residual signal;
concatenating the linear predictive coding filter parameters and the residual signal into an extended vector; and
reducing a dimensionality of the extended vector to extract speech recognition features from the bitstream ~~discriminatively combining the linear predictive coding filter parameters and the residual signal into speech recognition features.~~

2. (currently amended) The method of claim 1 further comprising:

up-sampling the linear predictive coding filter parameters; and
interpolating the up-sampled linear predictive coding filter parameters.

3. (original) The method of claim 2 wherein a set of samples is obtained for every frame of the bitstream.

4. (currently amended) The method of claim 2 further comprising:

deriving cepstral vectors from the up-sampled ~~LPC~~ linear predictive coding filter parameters.

5. (original) The method of claim 1 further comprising:

setting short-term prediction coefficients to zero; and
decoding the bitstream to obtain the residual signal.

6. (original) The method of claim 1 further comprising:
analyzing an entire spectrum of the residual signal.
7. (currently amended) The method of claim 1 further comprising:
deriving a high-dimensional log spectra from the residual signal for each set
of up-sampled ~~LPC~~ linear predictive coding filter parameters.
8. (currently amended) The method of claim 1 further comprising:
deriving a cepstral vector corresponding to each set of linear ~~predictive~~
predictive coding filter parameters of each frame;
deriving a high-dimensional log spectra from the residual signal for each
frame;
concatenating the cepstral vector with each corresponding high-dimensional
log spectra for each frame to generated ~~an~~ the extended vector.
9. (currently amended) The method of claim 8 further comprising:
reducing ~~a~~ the dimensionality of the extended vector using linear
discriminant analysis.
10. (original) The method of claim 8 further comprising:
reducing a dimensionality of the extended vector using discriminant neural
network.
11. (original) The method of claim 1 wherein the speech recognition features are
extracted from a bitstream in a server executing a speech recognizer.